

A P P E N D I X II:

THE AMENDED CLAIMS (clean version of all claims):

21. (amended) A hydrogenation catalyst comprising
 - (a) iron or a compound based on iron or a mixture thereof,
 - (b) from 0.001 to 0.3% by weight based on (a) of a promoter based on 2, 3, 4 or 5 elements selected from the group consisting of aluminum, silicon, zirconium, titanium and vanadium,
 - (c) from 0 to 0.3% by weight based on (a) of a compound based on an alkali and/or alkaline earth metal, and
 - (d) from 0.001 to 1% by weight based on (a) of manganese.
22. (amended) The catalyst defined in claim 21, which is obtained by reduction with or without subsequent passivation of a magnetite.
23. (amended) The catalyst defined in claim 21, which is obtained by precipitating precursors of said components (a), (b), (d) and optionally (c) in the presence or absence of support materials.
24. (amended) The catalyst defined in claim 21, which is obtained by impregnating a support with a solution of said components (a), (b), (d) and optionally (c).
25. (amended) The catalyst defined in claim 21, which is obtained by spraying said components (a), (b), (d) and optionally (c) onto a support.
26. The catalyst defined in claim 21, which has a BET surface area of from 3 to 20 m²/g, a total pore volume of from 0.05 to 0.2 mL/g, an average pore diameter of from 0.03 to 0.1 μ m and a 0.01 to 0.1 μ m pore volume fraction within the range from 50 to 70%.
27. The catalyst defined in claim 21, wherein component (b) is based on aluminum, silicon and titanium.
28. The catalyst defined in claim 21, wherein component (c) is based on magnesium and/or calcium.
29. The catalyst defined in claim 21, wherein component (c) is present in an amount of from 0.01 to 0.2% by weight based on (a).
30. The catalyst defined in claim 21, wherein component (c) is present in an amount of from 0.01 to 0.1% by weight based on (a).

31. The catalyst defined in claim 21, wherein component (d) is present in an amount of from 0.001 to 0.3% by weight based on (a).
32. The catalyst defined in claim 21, wherein component (d) is present in an amount of from 0.01 to 0.2% by weight based on (a).
33. (new) A hydrogenation catalyst consisting essentially of
 - (a) iron or a compound based on iron or a mixture thereof,
 - (b) from 0.001 to 0.3% by weight based on (a) of a promoter based on 2, 3, 4 or 5 elements selected from the group consisting of aluminum, silicon, zirconium, titanium and vanadium,
 - (c) from 0 to 0.3% by weight based on (a) of a compound based on an alkali and/or alkaline earth metal, and
 - (d) from 0.001 to 1% by weight based on (a) of manganese.
34. (new) The catalyst defined in claim 33, which is obtained by reduction with or without subsequent passivation of a magnetite.
35. (new) The catalyst defined in claim 33, which is obtained by precipitating precursors of said components (a), (b), (d) and optionally (c) in the presence or absence of support materials.
36. (new) The catalyst defined in claim 33, which is obtained by impregnating a support with a solution of said components (a), (b), (d) and optionally (c).
37. (new) The catalyst defined in claim 33, which is obtained by spraying said components (a), (b), (d) and optionally (c) onto a support.
38. (new) The catalyst defined in claim 33, which has a BET surface area of from 3 to 20 m²/g, a total pore volume of from 0.05 to 0.2 mL/g, an average pore diameter of from 0.03 to 0.1 μm and a 0.01 to 0.1 μm pore volume fraction within the range from 50 to 70%.
39. (new) The catalyst defined in claim 33, wherein component (c) is present in an amount of from 0.01 to 0.2% by weight based on (a).
40. (new) The catalyst defined in claim 33, wherein component (d) is present in an amount of from 0.001 to 0.3% by weight based on (a).